

Chapter 4 Waste Management

Purpose (include this text box in the solid waste management plan)

Chapter 3 provided a summary of how much waste the SWMD generated in the reference year and how much waste the policy committee estimates the SWMD will generate during the planning period. A SWMD must have access to facilities that can manage the waste the SWMD will generate. This includes landfills, transfer facilities, incinerator/waste-to-energy facilities, compost facilities, and facilities to process recyclable materials. This chapter describes the policy committee's strategy for managing the waste that will be generated within the SWMD during the planning period.

To ensure that the SWMD has access to facilities, the solid waste management plan identifies the facilities the policy committee expects will take the SWMD's trash, compost, and recyclables. Those facilities must be adequate to manage all of the SWMD's solid waste. The SWMD does not have to own or operate the identified facilities. In fact, many solid waste facilities in Ohio are owned and operated by entities other than the SWMD. In fact, solid waste facilities in Ohio are owned by a variety of entities, including private companies, governments, and non-profit organizations. Further, identified facilities can be any combination of facilities located within and outside of the SWMD (including facilities located in other states).

Although the policy committee needs to ensure that the SWMD will have access to all types of needed facilities, Ohio law emphasizes access to disposal capacity. In the solid waste management plan, the policy committee must demonstrate that the SWMD will have access to enough landfill capacity for all of the waste the SWMD will need to dispose of. If there isn't adequate landfill capacity, then the policy committee develops a strategy for obtaining adequate capacity.

Ohio has more than 30 years of remaining landfill capacity. That is more than enough capacity to dispose of all of Ohio's waste. However, landfills are not distributed equally around the state. Therefore, there is still the potential for a regional shortage of available landfill capacity, particularly if an existing landfill closes. If that happens, then the SWMDs in that region would likely rely on transfer facilities to get waste to an existing landfill instead of building a new landfill.

If there is no reason to suspect that the landfills the SWMD has historically relied on for disposal will cease operating, then the policy committee can conclude that the SWMD will have access to needed disposal capacity. If, however, the policy committee concludes that the SWMD could encounter a shortage of disposal capacity, then the policy committee must determine how to address that situation.

If there aren't any available landfills within driving distance or existing transfer facilities nearby, then the policy committee might conclude that the best way of obtaining needed disposal capacity is for the SWMD to construct a transfer facility. Although not likely, the policy committee could also decide that the best way of providing needed disposal capacity is for the SWMD to construct a landfill facility.

Each SWMD also has the ability to control which landfill and transfer facilities can, and by extension cannot, accept waste that was generated within the SWMD. The SWMD accomplishes this by designating solid waste facilities (often referred to flow control). If a SWMD designates facilities, then solid waste transporters are obligated to take waste generated within the SWMD to a designated facility. If a SWMD has not designated facilities, then transporters can take that SWMD's waste to any solid waste disposal facility. The ability to designate facilities is granted to SWMDs by Ohio law. The SWMD's authority to designate facilities is explained in more detail later in this chapter.

A. Waste Management Overview

Instructions (remove this text box for the solid waste management plan

Complete Table 4-1 as follows:

Present data for the reference year and the first six years of the planning period.

Generate: Enter amounts for total waste generated/projected to be generated from Appendix G. Reference year amount will come from Table G-1 and projections will come from Table G-2.

Recycle: Enter amounts for total material recycled/projected to be recycled (not including material to be composted). The quantities entered will be the sum of residential/commercial material (from Appendix E) and industrial material (from Appendix F). For residential/commercial material, reference year amount will come from Table E-3 and projections from Table E-5. For industrial sector, reference year amount will come from Table F-3 and projections from Table F-5.

Compost: Enter amounts for total material managed/projected to be managed at compost facilities. The reference year amount will come from Table B-5 and projections from Table E-6.

Transfer: Enter amounts for total waste routed/projected to be routed through transfer facilities from Appendix D. The reference year amount will come from Table D-2 and projections from Table D-5.

Landfill: Enter amounts for total waste disposed/projected to be disposed in landfills from Appendix D (the quantity entered will be the total disposed in landfills – direct haul plus transferred waste). The reference year amount will come from Table D-3.a or D-3.b (depending upon whether excluded waste is included/excluded). Projections will come from Table D-5.

Table 4-1 Methods for Managing Waste

Year	Generate	Recycle	Compost	Transfer	Landfill
(reference year)					

Instructions (remove this text box for the solid waste management plan)

In the space indicated with “[replace with text to describe the SWMD’s reference year waste management here]”:

- Provide a short description of how SWMD-generated waste was managed during the reference year.
- A description of the recent disposal trend (increasing, decreasing, flat over the last few years)
- Any anomalies that skew disposal (such as a captive landfill, large quantity of a hard-to-recycle material, like FGD, etc.)
- A pie chart showing the data from Table 4-1 for the reference year

In the space indicated with “[replace with text to describe the SWMD’s planning period waste management strategy here]”, provide a short description of how SWMD-generated waste will be managed during the reference year. Examples of information to provide include:

- A description of the projected disposal trend and reasons for the trend (if projected to increase or decrease, why?).
- An explanation for changes in how waste will be managed during the planning period (e.g. an increase in waste to be transferred, increase in waste to be incinerated/burned for energy recovery, etc.)
- graph showing generation, recycling, and disposal for the first six years of the planning period (to depict relationship among the three numbers)

[replace with text to describe the SWMD’s reference year waste management here]

[replace with text to describe the SWMD’s planning period waste management strategy here]

B. Solid Waste Facilities Used in the Reference Year

1. Landfill Facilities

Instructions (remove this text box for the solid waste management plan)

[NOTE: This section will summarize information from Appendix D. Ensure that information used matches information from Appendix D.]

Complete Table 4-2 as follows:

List all landfill facilities used by the SWMD in the reference year.

[NOTE: Table 4-2 is organized by in-district, out-of-district, and out-of-state. Categorize landfills under the appropriate heading. If no SWMD-generated waste was accepted at a category of facility, then enter “none” in the row below the heading.]

[NOTE: Add rows as necessary but do not delete existing rows. If not all of the rows provided are needed, then leave the unneeded rows blank. This will reduce the likelihood of invalidating imbedded formulas.]

Facility Name: Enter the name of the landfill facility.

Location: For in-state facilities, enter the name of the county where the facility is located. For out-of-state facilities, list the name of the state.

Waste Accepted from SWMD: Enter the total tons of waste accepted from the SWMD. Use data from Appendix D.

Percent of all SWMD Waste Disposed: An embedded formula will automatically calculate and enter the percentage that waste disposed at each facility comprised of all waste disposed that year.

Remaining Capacity: Enter the years of remaining capacity for the facility at the end of the reference year (from Appendix M)

[NOTE: For in-state landfills, this information is available in Tables 13 (for publicly-available) and 13.1 (for private/captive) of Ohio EPA’s Facility Annual Report.]

In the space reserved with “[replace with text describing the SWMD’s use of landfill facilities]”, provide any text needed to supplement the information in Table V.2. Examples of information to provide include

- The presence/absence of landfills within the SWMD in the reference year. If there are landfills within the SWMD, describe the type/types:
 - privately owned and operated (captive)
 - publicly owned/publicly available
 - publicly owned/limited availability (such as limited to city or county that owns the facility)
 - publicly-owned/privately operated
 - privately owned/publicly-available
- If there are captive landfills within the SWMD, then indicate what companies own the facilities and the types of waste disposed in the facilities.
- A breakdown of waste managed at in-district, out-of-district, and out-of-state landfills in the reference year (maybe using a pie chart)
- Any issues that recently changed waste flows to facilities
- Any expansion permits issued t after the reference year

Table 4-2 Landfill Facilities Used by the District in the Reference Year

Facility Name	Location	Waste Accepted	Percent of	Remaining
---------------	----------	----------------	------------	-----------

there are transfer facilities within the SWMD, describe the type/types:

- publicly owned/publicly available
- publicly owned/limited availability (such as limited to city or county that owns the facility)
- publicly-owned/privately operated
- privately owned/publicly-available
- “Exempt” transfer facility
- A comparison of how much waste was transferred versus directly hauled to a landfill (maybe using a pie chart).
- Comparison of how much waste was transferred through in-district versus out-of-district facilities (maybe using a pie chart)
- Any expected changes in the SWMD’s use of transfer facilities during the planning period

Table 4-3 Transfer Facilities Used by the District in the Reference Year

Facility Name	County	Waste Accepted from District (tons)	Percent of all District Waste Transferred	Landfill Where Waste was Taken to be Disposed
<i>In-District</i>				
<i>Out-of-District</i>				
<i>Out-of-State</i>				
Total				

[replace with text describing the SWMD’s use of transfer facilities]

3. Composting Facilities

Instructions (this text box shall be removed from actual plan)

Complete Table 4-4.

List all composting facilities used by the SWMD in the reference year.

[NOTE: Add rows as necessary but do not delete existing rows. If not all of the rows provided are needed, then leave the unneeded rows blank. This will reduce the likelihood of invalidating imbedded formulas.]

Facility Name: Enter the name of the composting facility. Use the same name as was used for the facility in other portions of the plan.

Location: Provide whatever information is necessary to identify the location of the facility, such as County, Community, Street Address, etc.

provided are needed, then leave the unneeded rows blank. This will reduce the likelihood of invalidating imbedded formulas.]

Facility Name: Enter the name of the facility.

Location: Provide whatever information is necessary to identify the location of the facility, such as County, Community, Street Address, etc.

Type of Facility: Identify the type of facility – such as MRF, recycling center, transfer facility

Recyclables Accepted from District

- *Type* – enter the type(s) of recyclables received from the SWMD. If use acronyms, provide a key as a footnote to the table
- *Weight* – enter the total tons of recyclables accepted from the SWMD.

Percent of all SWMD Waste Processed: An embedded formula will automatically calculate and enter the percentage of all waste processed in the reference year that was accepted at each facility.

In the space reserved with “[replace with text describing the SWMD’s use of processing facilities]” provide any text needed to explain or supplement the information in Table 4-5.

Examples of information to provide include:

- Describe the presence or absence of facilities for processing recyclables within the SWMD and/or in the SWMD’s region of the state. Information to provide includes:
- If the SWMD owns/operates a facility, briefly describe the facility. Information to provide includes:
 - If a MRF, describe the processing system – single stream, multi-stream, automated, hand sort, etc.
 - Describe capacity of the facility (i.e. operating at capacity or able to accept/process more material)
 - Describe condition of the facility (any recent upgrades, does outdated equipment need to be replaced, etc.)
 - Explain what is processed (ie. material from SWMD-run services, like curbsides and drop-offs, material from other service providers, etc.)
- Any conclusions the policy committee came up with from the processing capacity analysis in Appendix H regarding the need for additional capacity and the SWMD’s role in establishing that capacity.

Table 4-5 Processing Facilities Used by the District in the Reference Year

Name of Facility	Location	Type of Facility	Weight of Recyclables	Percent of all Material Processed
In-District				
Out-of-District				
Out-of-State				

[replace with text describing the SWMD’s use of processing facilities]

5. Other Waste Management

Instructions (remove this text box for the solid waste management plan)

Use this section to summarize any other waste management facilities that are located within the SWMD or that the SWMD relies on

In the space reserved with “[replace with text to describe other waste management facilities]” provide text describing other notable waste management facilities. Provide any combination of tables, graphs, charts and text as necessary to illustrate the information.

Examples of information to provide include:

Incineration/energy recovery:

- If the SWMD sends waste to incinerators/energy recovery facilities, how much? What percentage of total waste disposed was incinerated?
- If there are incinerators/energy recovery facilities located within the SWMD:
 - explain where the facilities are located
 - describe the facilities (such as the purpose – volume reduction, energy production, waste treatment, etc.)
 - identify who operates the facilities
 - explain how much and types of waste managed at the facilities.
- If the SWMD sent waste to incinerators/energy recovery facilities in other SWMDs or out-of-state:

- explain where the facilities are located
- describe those facilities (such as the purpose – volume reduction, energy production, waste treatment, etc.)
- identify how operates the facilities
- explain how much and types of waste managed at the facilities.

Other Facilities

If there are other facilities within the SWMD that significantly affect waste management, then describe those facilities. Examples include:

- An auto shredder
- Anaerobic digestors
- Waste to fuel facilities (e.g. facilities that create fuel-derived waste)
- Mixed solid waste material recovery facility

[replace with text to describe other waste management facilities]

B Use of Solid Waste Facilities During the Planning Period

Instructions (remove this text box for the solid waste management plan)

In the space reserved with “[replace with text to describe the SWMD’s planning period waste management strategy here]”, provide a summary of the SWMD’s waste disposal strategy for the planning period. The amount of information to provide will depend upon the complexity of the waste management strategy. For SWMDs where the landfills used in the reference year have adequate capacity to operate during the planning period, the summary will be short. For SWMDs that may experience changes in waste flows, the summary will need to provide more information.

Capacity at landfills:

- If the landfills listed in Table 4-1 have adequate remaining life to operate during the entire planning period, then explain that the policy committee expects waste to be disposed of similarly to how waste was disposed in the reference year.
- If the landfills listed in Table 4-1 do not all have adequate remaining life to operate, then explain the status of those landfills (e.g. owner/operator has/has not applied for permit to expand; there are/are not issues with an expansion permit or site; the owner/operator intends to close the facility)
- If a landfill is not expected to operate during the planning period then explain why and describe the policy committee’s strategy for obtaining additional capacity. Examples of information to provide include:
 - identify additional landfills that could accept waste from the SWMD and where those landfills are located/distance from SWMD
 - If available landfills are far away, then explain need for/presence of/role of transfer facilities if waste is to be sent to more distant landfills
 - Describe the SWMD’s role in addressing a potential capacity shortage.

Examples of other information to provide include:

- If policy committee knows of circumstances that could cause a facility to cease operating (e.g. a facility has ongoing operational issues), then explain those circumstances and how they could affect the SWMD’s access to disposal capacity.
- Discuss any other issues that may change waste flows to facilities (e.g. new community contracts for waste services that changed/will change where waste was/will be disposed, anticipated designation agreements, etc.).
- Any new facilities that are planned or currently being constructed within the SWMD.
- Any permit expansions at facilities used by the SWMD that were issued after the reference year or anticipated during the planning period

Composting Capacity:

If the policy committee concluded that the SWMD needs additional capacity for managing compostable material, then summarize the policy committee’s strategy for making that capacity available

Processing capacity:

- If the policy committee projects changes in where material will be processed during the planning period, then explain those changes.
- If the policy committee concluded that the SWMD needs access to additional capacity for processing recyclable materials, then summarize the policy committee’s strategy for making that capacity available

Alternative waste management:

If an entity in the SWMD intends to implement or is exploring alternative waste management technologies that could become destinations for SWMD waste, then explain that. Examples of alternative waste management technologies include waste derived fuels, waste-to-energy incinerators, pyrolysis, and gasification.

[replace with text to describe the SWMD’s planning period waste management strategy here]

3. Siting Strategy

Purpose (include this text box in the solid waste management plan)

If the policy committee decides that the solid waste management district will construct a solid waste facility to secure disposal capacity, Ohio law requires the policy committee to develop a strategy for identifying a suitable location for the facility (see Ohio Revised Code [Section 3734.53\(A\)\(8\)](#)). This strategy is referred to as a siting strategy. The policy committee must include its siting strategy in the solid waste management plan. If this solid waste management plan includes a siting strategy, then that strategy is summarized in this chapter and presented in full in Appendix S.

Instructions (remove this text box for the solid waste management plan)

If the SWMD has or develops a siting strategy, then summarize that strategy in plain language in the space below reserved with “[replace with text explaining the SWMD’s siting strategy]” below. In the summary, refer to Appendix S for the complete siting strategy.

If the SWMD doesn’t have or doesn’t intend to develop a siting strategy, then state that in the space reserved with “[replace with text explaining the SWMD’s siting strategy]” and explain why the SWMD doesn’t have a siting strategy.

[replace with text explaining the SWMD’s siting strategy]

C. Designation

Purpose (include this text box in the solid waste management plan)

Ohio law gives each SWMD the ability to control where waste generated from within the SWMD can be taken. Such control is generally referred to flow control. In Ohio, SWMDs establish flow control by designating facilities. SWMDs can designate any type of solid waste facility, including recycling, transfer, and landfill facilities. Once the SWMD establishes facility designations, no one can take SWMD-generated waste to undesignated facilities and undesignated facilities cannot accept waste from the SWMD unless the SWMD issues a waiver.

The process of designating facilities has a number of steps. The first step is performed through the solid waste management plan. Even though SWMDs have the legal right to designate, an individual SWMD must first be authorized by its policy committee to establish facility designations. The SWMD cannot designate without that authorization. Authorization is granted through a solid waste management plan. Because the policy committee prepares the solid waste management plan, it is also the policy committee that determines whether the SWMD will be authorized to designate facilities.

The policy committee must clearly state in the solid waste management plan whether or not it wants the SWMD to be able to designate facilities. The statement either authorizes the SWMD to or prevents the SWMD from designating facilities. The authorization isn’t effective until Ohio EPA approves the solid waste management plan.

In addition to the statement mentioned above, if the board of directors designated facilities under the authority of a previous solid waste management plan, then the current solid waste management must list those facilities. If the board of directors has designated facilities, then those facilities are listed in Table 4-6 below.

After Ohio EPA approves a solid waste management plan that authorizes designation, the county commissioners, acting as the board of directors, are responsible for establishing which facilities are designated. While the policy committee awards the authority to establish facility designations, the board of directors is not obligated to actually designate facilities. If it chooses to designate facilities, then the board of directors must follow the process that is prescribed in [ORC Section 343.014](#).

Once the board of directors designates facilities, owners and operators of undesignated

facilities are prohibited from taking that SWMD's waste. The board of directors can grant a waiver to allow SWMD to be disposed at an undesignated facility. Ohio law prescribes the criteria that the board must consider when deciding whether to grant a waiver and how long the board has to make a decision on a waiver request.

1. Authorization Statement to Allow/Preclude Designation

Instructions (remove this text box for the solid waste management plan)

ORC Section 3734.53(E)(1) requires a solid waste management plan to provide a clear statement as to whether the board of county commissioners or directors is authorized to or precluded from establishing facility designations under ORC Section 343.01.

If the policy committee decides to authorize the board of county commissioners or directors to establish facility designations, then remove the placeholder "[replace with designation statement]" and provide the following statement:

"The Board of Directors of the _____ Solid Waste Management District is hereby authorized to establish facility designations in accordance with Section 343.014 of the Ohio Revised Code after this plan has been approved by the director of the Ohio Environmental Protection Agency."

For an authority, remove the placeholder "[replace with designation statement]" and provide the following statement::

"The Board of Trustees of the _____ Regional Solid Waste Authority is hereby authorized to establish facility designations in accordance with Section 343.014 of the Ohio Revised Code after this plan has been approved by the director of the Ohio Environmental Protection Agency."

If the policy committee decides to preclude the board of county commissioners or directors from establishing facility designations, then remove the placeholder "[replace with designation statement]" and provide the following statement:

"The Board of Directors of the _____ Solid Waste Management District is hereby precluded from establishing facility designations in accordance with Section 343.014 of the Ohio Revised Code."

For an authority, remove the placeholder "[replace with designation statement]" and provide the following statement::

"The Board of Trustees of the _____ Regional Solid Waste Authority is hereby precluded from establishing facility designations in accordance with Section 343.014 of the Ohio Revised Code."

In the space reserved with "[replace with supplemental text here]", provide text to explain the policy committee's/board of trustees' reason for authorizing or precluding establishing facility designations.

[replace with designation statement here]

[replace with supplemental text here)

2. Description of the SWMD's Designation Process

Instructions (remove this text box for the solid waste management plan)

If the SWMD does or will designate facilities, then in the space reserved with “[replace with text describing the designation process here]”, summarize in easy-to-understand language the SWMD’s designation process. Include a brief explanation of the waiver process.

[replace with text describing the designation process here]

3. List of Designated Facilities

Instructions (remove this text box for the solid waste management plan)

If the SWMD does not have existing facility designations, then enter “none” in the first row below “Facility Name”

If the SWMD has existing facility designations, then complete Table 4-6 below.

[NOTE: Table 4-6 is organized by in-district, out-of-district, and out-of-state. Categorize facilities under the appropriate heading. If no facilities in a particular category are designated, then enter “none” in the row below the heading for that category.]

Facility Name – Enter the name of the facility.

Location - For facilities located in Ohio, enter the name of the county where the facility is located. For facilities located outside of Ohio, enter the name of the state.

Facility Type - Indicate the type of facility (i.e. landfill, transfer facility, incinerator, recycling processor, etc.).

Table 4-6 Facilities Currently Designated

Facility Name	Location (County, state)	Facility Type
<i>In-District</i>		
<i>Out-of-District</i>		
<i>Out-of-State</i>		